

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): ~~Method A method~~ for dynamic allocation of transmission resources to a plurality of communications between a base station and a plurality of mobile terminals, ~~each resource consisting of~~ including a plurality of possible values, an allocation controller associated with the base station, referred to as the fast allocation controller, being able to allocate to the ~~said~~ communications only certain combinations of possible values, referred to as available resources, ~~characterised in that the~~ wherein said fast allocation controller generates a pseudo-random sequence and ~~allocates~~ performs the allocation by selecting at least one available resource ~~to a~~ for each communication according to a value of the ~~said~~ pseudo-random sequence.

Claim 2 (Currently Amended): ~~Dynamic resource allocation~~ The method according to Claim 1, ~~characterised in that~~ further comprising sequentially indexing each of the ~~said~~ available resources ~~are indexed sequentially and, wherein in that~~ a combination of available resources is allocated if ~~its~~ an index of the ~~available resource~~ is equal to a value ~~of~~ in the ~~said~~ pseudo-random sequence.

Claim 3 (Currently Amended): ~~Dynamic resource allocation~~ The method according to Claim 1, ~~or 2, characterized in that~~ further comprising transmitting parameters for generating the ~~said random pseudo-random~~ sequence are transmitted from the base station to the mobile terminals and ~~in that the said random generating the pseudo-random sequence is~~ generated by the mobile terminals from the ~~said~~ generation parameters.

Claim 4 (Currently Amended): ~~Dynamic resource allocation~~ The method according to ~~one of the preceding claims~~ claim 1, ~~characterized in that~~, wherein the transmission resources of a plurality of adjacent base stations ~~being~~ are controlled by a slow allocation controller, the resources available for each base station are determined regularly, at a first frequency, by the ~~said~~ slow allocation controller and transmitted by the ~~latter~~ slow allocation controller to the fast allocation controllers associated with the ~~said~~ base stations.

Claim 5 (Currently Amended): ~~Dynamic allocation~~ The method according to Claim 4, ~~characterised in that~~ 1, further comprising transmitting an item of information supplying the resources available at ~~a~~ the base station ~~is transmitted by the latter~~ to the mobile terminals which it serves.

Claim 6 (Currently Amended): ~~Dynamic resource allocation~~ The method according to Claim 4 ~~or 5~~ 1, characterised in that each fast allocation controller ~~wherein the performing~~ the allocation allocates the resources available at the base station ~~with which it is associated~~ at a second frequency substantially higher than the ~~said~~ first frequency.

Claim 7 (Currently Amended): ~~Dynamic allocation~~ The method according to ~~one of the preceding claims~~, ~~characterised in that~~ Claim 1, wherein the resources ~~comprise~~ include at least one of transmission time slots, spectral spreading codes intended to separate the different communications ~~and/or~~ and transmission frequencies.

Claim 8 (Currently Amended): ~~Dynamic allocation~~ The method according to ~~one of the preceding claims~~, ~~characterised in that the random sequence is calculated~~ Claim 1, wherein the generating generates the pseudo-random sequence by:

$$X(1) = x_0$$

$$X(i+1) = \text{mod}((a \cdot X(i) + b - 1, 2^N) + 1$$

$$X(i+1) = \text{mod}(a \cdot X(i) + b - 1, 2^N) + 1$$

where x_0 is a word of N bits ~~constituting~~ representing the seed of the sequence, $a-1$ is a nonzero integer which is a multiple of 4 and b is an odd number,

and where N is an integer such that 2^N is greater than ~~the~~ a maximum number of available resources.

Claim 9 (Currently Amended): ~~Dynamic allocation~~ The method according to Claim 7 or 8, ~~characterised in that, the~~ wherein each base station and the mobile terminals ~~belonging to form a portion of a~~ UTRA-TDD mobile telecommunication system, a first subset of available resources is dedicated to ~~the~~ uplink communications and a second subset of available resources is dedicated to ~~the~~ downlink communications, and ~~in that~~ wherein ~~allocation of the~~ allocating ~~allocates~~ the available resources of the first subset to the uplink communications ~~is effected~~ independently of ~~the~~ allocation of allocating the available resources of the second subset to the downlink communications.

Claim 10 (Currently Amended): ~~Dynamic allocation~~ The method according to ~~Claims 3 and 9~~ Claim 1, ~~characterised in that the random~~ wherein the transmitting transmits the paramters for generating the pseudo-random sequence generation parameters are transmitted over the common control channel BCH.

Claim 11 (New): A communication system including:

a plurality of adjacent base stations including a base station;

a plurality of mobile terminals, each mobile terminal having a communication transmitted from the base station in the plurality of adjacent base stations;

a plurality of transmission resources, each transmission resource including a plurality of possible values that may be allocated to the communications of the plural mobile terminals;

a fast allocation controller associated with the base station and configured to generate a pseudo-random sequence, transmit a seed for generating the pseudo-random sequence to the plurality of mobile terminals, and allocate the available resources to each communication in the plurality of communications from the base station to the plurality of mobile terminals according to a value of the pseudo-random sequence;

a slow allocation controller configured to determine, at a first frequency, available resources for each base station, the available resources including a subset of the possible values, said slow allocation controller further configured to transmit the available resources to the fast allocation controller;

said mobile terminals further configured to generate the pseudo-random sequence from the seed; and

said base station further configured to transmit a first communication to a first terminal in the plurality of mobile terminals and a second communication to a second terminal in the plurality of mobile terminals according to the allocated resources.

Claim 12 (New): A method for dynamic allocation of transmission resources to a communication between a base station and a mobile terminal, each resource including a plurality of possible values, the method comprising:

determining available resources at a first frequency, the available resources including a subset of the possible values of each transmission resource to be made available to the base station;

generating a pseudo-random sequence for the base station, said pseudo-random sequence being generated from a seed;

transmitting the seed for generating the pseudo-random sequence from the base station to the mobile terminal at a predetermined frequency;

generating the pseudo-random sequence from the seed by the mobile terminal; and allocating the available resources to the communication according to a value in the pseudo-random sequence.

Claim 13 (New): A method for dynamic allocation of resources to a communication between a base station and a mobile terminal, each resource including a plurality of possible values, the method comprising:

generating a matrix to store the plurality of possible values, each cell of the matrix being associated with a combination of possible values, and said matrix including at least two dimensions;

assigning an index to each cell in the matrix;

generating a pseudo-random sequence by a fast allocation controller associated with the base station; and

allocating a combination of possible values in the plurality of possible values to the communication based on the assigned index and a value in the pseudo-random sequence.

Claim 14 (New): A method of dynamic allocation of resources to a communication between a base station and a mobile terminal, each resource including a plurality of possible values, the method comprising:

 determining a plurality of available combinations of values that are available for the base station from the plurality of possible values;

 generating a pseudo-random sequence by a fast allocation controller associated with the base station;

 selecting a subset of combinations of values from the determined plurality of available combinations based on a value of the pseudo-random sequence, a number of combinations of values in the subset of combinations of values being smaller than a number of combinations of values in the determined plurality of available combinations; and

 allocating at least one combination of values in the subset of combinations of values to the communication between the base station and the mobile terminal.